1) Introduction
   a) I have been involved with in Low-level, transuranic, and High-level radioactive waste transportation planning since 1988
   b) SR127 faces three types of rad waste transportation, from three different DOE divisions:
      i) **Current** shipments of low-level radioactive waste (DOE-NTS)
      ii) **Planned** shipments of transuranic waste (DOE-WIPP)
      iii) **Potential** shipments of high-level radioactive waste (DOE-OCRWM)
      Each program involves differences in direction, vehicle types, container types, volumes, timing and policy implications.

2) LOW-LEVEL RADIOACTIVE WASTE SHIPMENTS: contaminated materials destined for shallow disposal
   a) Shipments are inbound to the Nevada Test Site
   b) Shipments are in standard, legal-weight trucks with box trailers
   c) Materials are packed in steel transport boxes, with no special regulatory requirements
   d) Volumes are large but uncertain, as they come from much of the DOE Weapons Complex across the nation, and routes may vary. If more materials move to intermodal shipments (rail to truck) the rail terminus may be critical to the route(s) selected.
   e) Shipments will occur over the next 20-25 years
   f) Routing and modal decisions are strongly driven by policy considerations. DOE-NTS is attempting to be a good neighbor to Las Vegas and the State of Nevada. So far, they have agreed to keep low-level waste shipments out of Las Vegas and off the Hoover Dam. Winter shipments are now split between XXX in Nevada and SR127.

3) TRANSURANIC WASTE SHIPMENTS: materials contaminated with radioactive elements higher on the periodic chart than Uranium, primarily Plutonium.
   a) Transuranic waste shipments, destined for deep geologic disposal at WIPP near Carlsbad, New Mexico, are outbound from both Lawrence Livermore National Laboratory and the Nevada Test Site.
   b) Contact-handled wastes are transported on legal-weight trucks, with special trailers for the shipping casks.
   c) TRU-PACT II casks are type B casks, certified by the NRC.
   d) All wastes from the NTS will be shipped in a single shipping campaign of from 70-90 shipments.
   e) Shipments are scheduled to begin in November, 2001.
   f) Although contact-handled wastes can be shipped using low-level waste regulations, WIPP has agreed to select routes in coordination with the states involved. This is why shipments are not being routed down US95 in Nevada to Las Vegas and I15.

4) HIGH-LEVEL RADIOACTIVE WASTE SHIPMENTS: spent nuclear fuel, glassified radioactive wastes, and other special materials, destined for disposal at the proposed repository at Yucca Mountain, Nevada.
   a) Shipments are inbound to Yucca Mountain from sites across the nation.
   b) Shipments will be either by legal-weight truck (for GA 4/9 type casks) or by heavy-haul shipments (for intermodal [rail to truck] or multi-purpose casks).
   c) All shipments will be in type B casks, certified by the NRC. The capacity of the cask is dependant on reactor type (for spent nuclear fuel) and mode.
   d) Shipment volumes could range as high as 142,000, based on the assumptions made for cask type, reactor facilities, etc.
   e) The shipments may begin in 2010, and will continue for approximately 25 years.
   f) While there are specific regulations for the routing of these Highway Route-Controlled Quantities, policy considerations and public perception of risk may drive routing decisions. In particular, rail shipments have no routing requirements, and the choice of an intermodal terminal will greatly impact the highway route used for final delivery.